

**REMARKS**

The application has been reviewed in light of the Office Action mailed October 26, 2005. At the time of the Office Action, Claims 1-9 and 11-23 were pending in this application. Claims 1-9 and 11-23 were rejected.

**Rejections of the Claims under 35 U.S.C. § 103(a)**

**Claims 1, 2, 11, 12, 18 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over applicant's alleged admitted prior art in view of U.S. Patent No. 6,389,120 by Garland et al. ("Garland").**

Claims 11, 18 and 19 have been canceled. Applicant respectfully traverses the rejections and submits that the references relied upon do not teach or suggest, individually or in combination, what is being claimed in independent claim 1 and all claims dependent thereto. Claims 2 and 12 depend from claim 1, and contain all limitations thereof.

The present invention may provide a plurality of input-output (I/O) resources, *e.g.*, Ethernet, SCSI, FC-AL, *etc.*, interface modules, in a multi-server environment, wherein each of the plurality of I/O resources may be allocated to any one of the servers as the operational environment dictates, in a manner that is software compatible with industry standard I/O subsystems and current software operating systems. Thus the present invention may allocate each of the plurality of I/O resources to selected ones of the servers in the multi-server environment via switches that may behave like multiple I/O bridges. These switches may comprise multiplexers, and input and output buffers, wherein an input buffer and an output buffer pair are coupled to each of the plurality of I/O resources and to each of the servers. The switches may be statically configured so as to couple the appropriate input-output buffer pairs together (I/O module buffer pair coupled to a respective server buffer pair) such that the desired I/O resources may be operationally coupled to respective ones of the servers in the multi-server

environment. In addition, each of the selectively coupled I/O resources may appear to an operating system of a respective server as a standard I/O resource for that server and may be configured as such.

In contrast, the prior art depicted in Figures 1, 2 and 3 all have dedicated I/O resources that cannot be interchanged between servers in a multi-server environment. Thus the prior art requires that each server must be configured with appropriate I/O resources that cannot be changed in the field without major disassembly of the servers and performing I/O module component reconfigurations therein.

**Garland** teaches coupling one or two servers to a plurality of telephone lines through a plurality of communications channels (see Figure 2 and column 3, lines 35-67 of **Garland**). There is no teaching or suggestion in **Garland** for selectively coupling I/O resources to respective servers as recited in independent claim 1, “*wherein said at least one I/O switch couples selected ones of the at least one server I/O ports to selected ones of the module I/O ports.*” In contrast, **Garland** teaches coupling of telephone lines to modems or telephone switching equipment. The telephone switching equipment of **Garland** is fixed at the time of installation to a server(s) and the only switching is of the telephone circuits in the telephone switching equipment. The telephone switching equipment of **Garland** may be weakly analogized to the I/O modules represented in the prior art depicted in Figures 1, 2 and 3 of the present application. Applicant respectfully submits that **Garland** teaches or suggests no more than what was disclosed in the present application Figure 1, 2 and 3, and the accompanying description thereof in the instant specification.

An assertion has been in the Office Action that “it would have been obvious to one of ordinary skill in the art at the time to combine the teachings of applicant admitted prior art

with Garland et al. because that would provide multiple telephone lines to provide multiple physical channels in data communications to provide high speed data communications.” **Garland** may teach providing multiple telephone lines to provide multiple physical channels in data communications to provide high speed data communications. This is not what is being claimed in the instant application. What is being claimed is a flexible switching arrangement between main “glue logic,” of a plurality of servers, *e.g.*, north bridges illustrated in Figures 4 and 5 of the instant application, and a plurality of I/O resources, *e.g.*, I/O modules, that may be configured for specific interconnection combinations to the plurality of servers.

The invention deals with associations of servers and I/O resources. The invention associations occur between the servers and the I/O resources. **Garland** merely teaches what may be accomplished with I/O resources (telephone switching equipment) on the communications side (external telephone network) of the I/O resources not what may occur between the server and the I/O resources. All of the data communications circuits of **Garland** (see **Garland**, lines 108 of Figure 1, and channels 208 of Figure 2) are connected to the external side of the interfaces of these I/O resources and are designed for the particular communications medium necessary for these data communications circuits. There is no teaching or suggestion in **Garland** as to how interconnection between the servers and the I/O resources may be performed, nor is there any suggestion in **Garland** of what is being claimed in claim 1 of “*wherein said at least one I/O switch couples selected ones of the at least one server I/O ports to selected ones of the module I/O ports.*” (*emphasis added*)

The assertion in the office action that “it would have been obvious to one of ordinary skill in the art at the time to combine the teachings of applicant admitted prior art with Garland et al. because that would provide multiple telephone lines to provide multiple physical

channels in data communications to provide high speed data communication” (citation omitted) has nothing to do with the claimed invention nor would “one of ordinary skill in the art” be able to ascertain the invention from the references relied upon without having the benefit of what was disclosed in the specification, drawings and claims of the instant application. Pursuant to MPEP § 2144.03, incorporated by reference herein for all purposes, Applicant respectfully requests citation of at least one prior art reference that adequately substantiates a *prima facie* determination of obviousness of what is being claimed in light of the discussion of the invention above.

**Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over applicant’s alleged admitted prior art in view of U.S. Patent No. 6,389,120 by Garland et al. (“Garland”) and further in view of U.S. Patent No. 6,112,263 by Futral (“Futral”).**

Applicant respectfully traverses the rejections and submits that the references relied upon do not teach or suggest, individually or in combination, what is being claimed in independent claim 1 and all claims dependent thereto. Claims 3 and 4 depend from claim 1, and contain all limitations thereof.

*Futral* teaches an I/O device driver that may be shared between a number of software processes within a computer system. The assertion in the office action that “it would have been obvious to one of ordinary skill in the art at the time of teaching to modify the combination of applicant admitted prior art and Garland et al. with Futral because that would provide multiple telephone lines to provide multiple physical channels in data communications to provide different platforms with their own instance of an operating system to access to the same I/O device” (citation omitted) has anything to do with the claimed invention nor would “one of ordinary skill in the art” be able to ascertain the invention from the references relied upon without having the benefit of what was disclosed in the specification, drawings and claims of the

instant application. Pursuant to MPEP § 2144.03, incorporated by reference herein for all purposes, Applicant respectfully requests citation of at least one prior art reference that adequately substantiates a *prima facie* determination of obviousness of what is being claimed in light of the discussion of the invention above.

**Claims 5 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over applicant's alleged admitted prior art in view of U.S. Patent No. 6,389,120 by Garland et al. ("Garland") and further in view of U.S. Patent Application No. 2003/0142674 by Casey ("Casey").**

Applicant respectfully traverses the rejections and submits that the references relied upon do not teach or suggest, individually or in combination, what is being claimed in independent claim 1 and all claims dependent thereto. Claims 5 and 17 depends from claim 1, and contain all limitations thereof.

*Casey* has to do with virtual private LAN segment (VPLS) services. There is no teaching or suggestion in *Casey* as to how interconnection between the servers and the I/O resources may be performed, nor is there any suggestion in *Casey* of what is being claimed in claim 1 of "*wherein said at least one I/O switch couples selected ones of the at least one server I/O ports to selected ones of the module I/O ports*" (*emphasis added*). The assertion in the office action that "it would have been obvious to one of ordinary skill in the art at the time of invention to modify the combination of applicant admitted prior art and Garland with Casey because that would provide label values to the VPLS service (abstract" has anything to do with the claimed invention nor would "one of ordinary skill in the art" be able to ascertain the invention from the references relied upon, either individually or in combination, without having the benefit of what was disclosed in the specification, drawings and claims of the instant application. Pursuant to MPEP § 2144.03, incorporated by reference herein for all purposes, Applicant respectfully requests citation of at least one prior art reference that adequately substantiates a *prima facie*

determination of obviousness of what is being claimed in light of the discussion of the invention above.

**Claims 6-9 and 20-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over applicant's alleged admitted prior art in view of U.S. Patent No. 6,389,120 by Garland et al. ("Garland") and further in view of U.S. Patent Application No. 2003/0142674 by Casey ("Casey") and U.S. Patent No. 6,112,263 by Futral ("Futral").**

Claims 20-23 have been canceled. Applicant respectfully traverses the rejections and submits that the references relied upon do not teach or suggest, individually or in combination, what is being claimed in independent claim 1 and all claims dependent thereto. Claims 6-9 depend from claim 1, and contain all limitations thereof.

None of the references relied upon teach or suggest, individually or in combination, associating a plurality of I/O resources (modules) with respective ones of a plurality of servers in an information handling system by controlling at least one I/O switch for interconnecting desired ones of the plurality of I/O modules to respective ones of the plurality of server modules, as recited in independent claim 1.

The assertion in the office action that "it would have been obvious to one of ordinary skill in the art at the time of teaching to modify the combination of applicant admitted prior art, and Garland et al. and Casey with Futral because that would provide different platforms with their own instance of an operating system to access to the same I/O device" (citation omitted) has anything to do with the claimed invention nor would "one of ordinary skill in the art" be able to ascertain the invention from the references relied upon without having the benefit of what was disclosed in the specification, drawings and claims of the instant application. Pursuant to MPEP § 2144.03, incorporated by reference herein for all purposes, Applicant respectfully requests citation of at least one prior art reference that adequately substantiates a

*prima facie* determination of obviousness of what is being claimed in light of the discussion of the invention above.

**Claims 13-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over applicant's alleged admitted prior art in view of U.S. Patent No. 6,389,120 by Garland et al. ("Garland") and further in view of U.S. Patent No. 6,032,268 by Swoboda ("Swoboda").**

Applicant respectfully traverses the rejections and submits that the references relied upon do not teach or suggest, individually or in combination, what is being claimed in independent claim 1 and all claims dependent thereto. Claims 13-16 depend from claim 1, and contain all limitations thereof.

*Swoboda* teaches improved architectures and methods for emulation, simulation and testability of data processing devices and systems without requiring physical probing or special test fixtures (see Abstract of *Swoboda*). The assertion in the office action that "it would have been obvious to one of ordinary skill in the art at the time of invention to modify the combination of applicant admitted prior art and Garland et al. with Swoboda et al. because that would provide re-useable tests for related chips and systems" (citation omitted) has anything to do with the claimed invention nor would "one of ordinary skill in the art" be able to ascertain the invention from the references relied upon without having the benefit of what was disclosed in the specification, drawings and claims of the instant application. Pursuant to MPEP § 2144.03, incorporated by reference herein for all purposes, Applicant respectfully requests citation of at least one prior art reference that adequately substantiates a *prima facie* determination of obviousness of what is being claimed in light of the discussion of the invention above.

**Arguments Relating to the Combination of the References Asserted**

**No Basis or Support Has Been Shown in the Rejection of the Claims That One Having Ordinary Skill in the Art at the Time of the Invention Would Be Motivated to Modify the References Relied Upon to Produce the Invention**

Throughout the rejections the assertion of “it would have been obvious to one of ordinary skill in the art at the time of the invention to combine” the various elements found in the references relied upon to produce the present invention is respectfully traversed. It is improper to use the invention disclosed as a template to pick and choose from the various references without some teaching or motivation found in these references to combine the elements necessary to produce the claimed invention.

Pursuant to MPEP § 2144.03, incorporated by reference herein for all purposes, Applicant respectfully submits that no prior art reference documents have been disclosed nor asserted that would substantiate that one having ordinary skill in the art at the time of the invention would be motivated to modify the references relied upon to produce the present invention. Applicant respectfully submits that the references relied upon do not teach or suggest the new, novel and non-obvious advantages of the invention as recited in independent claim 1 and all claims dependent therefrom.

"When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness." *In re Lee*, 61 U.S.P.Q.2d 1430, 1433 (Fed. Cir. 2002), citing *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d 1001, 1008 (Fed. Cir. 2001) (“the central question is whether there is reason to combine [the] references,” a question of fact drawing on the Graham factors).

Moreover, the Federal Circuit in *In re Lee* further indicated that:

“The factual inquiry whether to combine references must be thorough and searching.” *Id.*, 61 USPQ2d at 1433. “It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with.” *Id.*, citing, *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) (“a showing of a suggestion, teaching, or motivation to combine the prior art references is an ‘essential component of an obviousness holding’”) (quoting *C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”); *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the Applicant); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (“teachings of references can be combined only if there is some suggestion or incentive to do so.”) (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)).

“The need for specificity pervades this authority.” *In re Lee*, 61 USPQ2d at 1433, 1434, citing *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) (“even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.”); *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination “only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references”).

Finally, the Federal Circuit noted that:

“This factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to “[use] that which the inventor taught against its teacher.” *In re Lee*, 61 USPQ2d at 1434, quoting *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983).

Applicant respectfully submits that the obligation required for a *prima facie* determination of obviousness under the holding in *In re Lee* has not been met. None of the references relied upon teach or suggest the problem and/or solution of the problem as disclosed and claimed in the present invention. Therefore, someone skilled in the art would not be prompted to combine the teachings of these references. “Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.” *In re Napier*, 55 F.3d 610, 613, 34 USPQ 1782, 1784 (Fed. Cir. 1995), quoting *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990) (additional citations omitted).

**The Invention Itself Cannot Be Used as a Template to Pick and Choose Elements from Prior Art References**

Applicant respectfully submits that alleged identification in the prior art of each individual element claimed is insufficient to defeat patentability of the claimed invention as a whole. *In re Kotzab*, 217 F.2d 1365, 1369, 55 U.S.P.Q.2d 1313, 1316 (Fed. Cir. 2000). Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the Applicant. *Id.* None of the references relied upon make any suggestion of the problem or solution for the problem disclosed and solved by the present invention as claimed.

All amendments are made in a good faith effort to advance the prosecution on the merits. Applicant reserves the right to subsequently take up prosecution on the claims as originally filed in this or appropriate continuation, continuation-in-part and /or divisional applications.

Applicant respectfully requests that the amendments submitted herein be entered, and further requests reconsideration in light of the amendments and remarks contained herein.

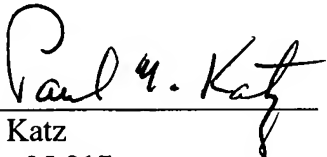
Applicant respectfully requests withdrawal of all objections and rejections, and that there be an early notice of allowance.

**SUMMARY**

In light of the above amendments and remarks Applicant respectfully submits that the application is now in condition for allowance and early notice of the same is earnestly solicited. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone or facsimile.

Applicant believes that there are no other fees due in association with the filing of this Response. However, should the Commissioner deem that any other fees are due, including any fees for a further extension of time, Applicant respectfully requests that the Commissioner accept this as a Petition Therefor, and direct that any and all fees due are charged to Baker Botts L.L.P. **Deposit Account No. 02-0383, Order Number 016295.1401.**

Respectfully submitted,  
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